

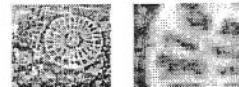
Basics of Photography

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Image Basics

- A film camera captures light onto film at a specific speed to create an image.
- A digital image is a collection of light on an image sensor.
 - This image is called a bitmap and is made up of PIXELS.



- Digital Cameras work in **Megapixels**.
- A megapixel is equal to *one million pixels*.
- The picture to the left has approximately 6,100,000 pixels in it and was taken with a 6.1 megapixel camera.
- The more pixels in an image, the smoother and more detailed the photo will appear.

Digital Image Basics

1. How will I be sharing my photos?
 - Web and e-mail, home printing or professional printing?
2. Will I be printing my photos on a regular basis?
 - Home vs. local vs. online printing services
3. How BIG do I want my photos to be?
 - 3x5, 4x6, 8x10, or bigger?
 - Telephoto zoom
 - Light metering
 - Generally has a video option

Camera Resolution and Memory

Camera Resolution	2 MP	3.3 MP	4.1 MP	5 MP
Card Capacity	How many pictures?	How many pictures?	How many pictures?	How many pictures?
32 MB	30	17	14	8
64 MB	61	35	30	17
128 MB	123	71	61	35
256 MB	246	142	122	70
512 MB	492	284	244	140
1 GB	984	568	488	280

Megapixel Printing Chart

Camera Resolution	Max High Quality Print Size
1.3 megapixels	4 x 6 print
2 megapixels	5 x 7 print
3.3 megapixels	8 x 10 print
4 megapixels	11 x 14 print
5 megapixels	12 x 16 print
6.3 megapixels	14 x 20 print
8 megapixels	16 x 22 print

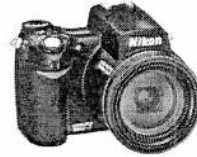
Types of Digital Cameras

Point and Shoot



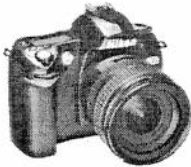
- The least expensive digital camera for the everyday consumer
- 1 – 8 megapixel range or higher.
- Fully automatic and little creative control (some scene settings, etc.).
- Limited print output
- Ideal for web page photos and personal photo albums.

SLR-Like Digital



- Most commonly sold digital camera, also known as "Prosumer"
- Available in high megapixel models (12 megapixel or more)
- Give some creative controls
 - Scene settings

SLR Digital



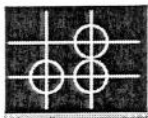
- Professional quality cameras that are 100% photographer controlled
- Generally don't go above 6.3 megapixel
- Manual and auto functions (aperture, white light, etc.)
- Interchangeable lenses

Digital Image Basics: Storage

■ Image Storage

- The amount of images that can be stored on a memory card depends on:
 - Capacity of the card
 - Resolution of the images taken
 - Amount and type of compression

Photography Basics



- Rule of Thirds
- Look your subject in the eye
- Simplify your background
- Be spontaneous, have your camera ready at all times and be creative
- Alter your camera angle
- Play with lighting and the camera's flash
- Get close up to your shots (macro)

Software for editing

- Picasa is a free download from Google.
 - Organize photos
 - Basic edits
 - 12 advanced edits to alter color and image
- www.picasa.org
- Good sites to review camera specs
 - www.imaging-resource.com
 - www.dpreview.com

Websites of Interest for digital photography

Flickr

www.flickr.com

Flickr is a free service of Yahoo! You can upload up to 20 megabytes of photos to your account each month. You also get a persistent web link to send friends and family to for photo viewing.

Moo

www.moo.com

Turn your flickr pictures into mini cards with this service.

Card Store

www.cardstore.com

Card Store lets you create custom cards with your photos and will even mail your cards to the recipient through the USPS.

Kodak Easy Share Gallery

www.kodakgallery.com

Create a free account to upload, share, and order prints of your pictures online as well photo books, stickers, and photos printed on canvas.

BubbleShare

www.bubbleshare.com

With this site create captions for your pictures and even narrate slideshows all on the internet.

SmugMug

www.smugmug.com

You can store, share, and order prints with this online photo service. Enjoy the site with its free trial and then become a subscriber to enjoy all the services SmugMug has to offer.

Mpix Online Lab

www.mpix.com

The Mpix lab is a professional lab to develop your pictures. High quality prints and papers will leave you quite pleased with the results.

Photo Stamps

www.photo.stamps.com

If you are interested in making your own personalized postage stamps for everyday use or special occasions, then this is the site for you.

Nova Pop

www.novapop.com

If you want to do something different and maybe even a little bit crazy with your photos this is the site. Create giant prints; apply an Andy Warhol effect or just art deco out your photographs.

My Publisher

www.mypublisher.com

Create custom photo books to display your digital photos

Picaboo

www.picaboo.com

Use this site to make simple and easy photo books that start at just \$10 each.

Together Book

www.togetherbook.com

If you have too many photos sitting in too many boxes and haven't looked at them in years, Together Books will bind them into a book format for you.

My Custom Story

www.mycustomstory.com

This site allows you to make custom photo board books for small children.

FreeThePhoto

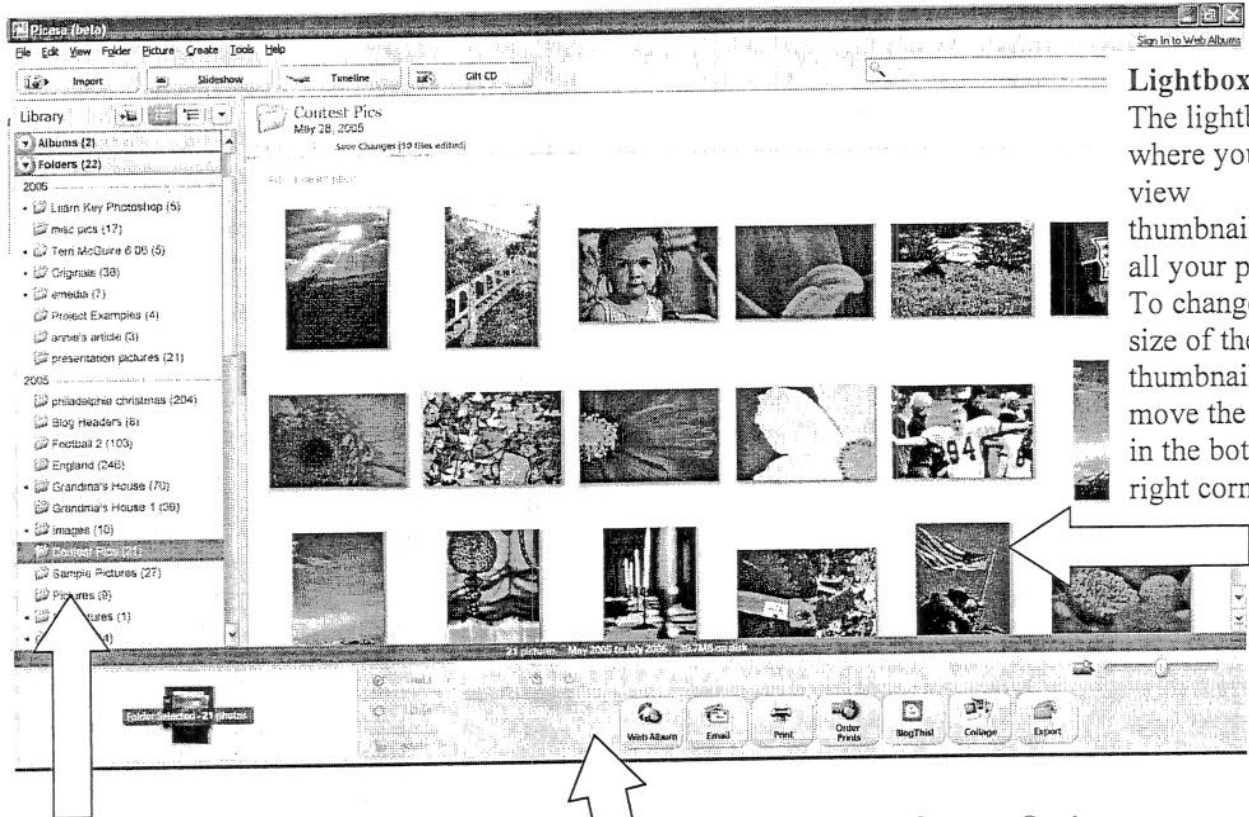
www.freethephoto.com

This South Jordan, Utah company will turn your digital or print photos into memorable DVD slideshows with transition, music, and menus.



File Organization

When Picasa is installed and opened onto your computer, the program scans your computer for all image and video files. All files that fall under these categories are stored in the Picasa Library. The library organizes your media files by subject and date.



Lightbox:
The lightbox is where you view thumbnails of all your photos. To change the size of the thumbnail, move the slider in the bottom right corner.

Folder List:
The folder list shows all the folders containing pictures on your computer and all the labels created in Picasa. The folder list is sorted by creation date.

Picture Tray and Output Options:
The picture tray allows you to collect pictures and work with them in a group. The other buttons perform their respective actions using the pictures currently in the picture tray.

Library Tools



Import allows you to bring pictures into Picasa from a file on your computer, or directly from your digital camera or digital camcorder. To do this, simply plug the camera device into the computer (appropriate cables, etc.) and import the pictures.

Slideshow allows you to view one of your folders on a full screen with automated advancement between photos. To use the slideshow option, select a photo within an album, press the slideshow button and sit back and watch the show.

Timeline gives an alternate view of the items in the Picasa folder. This view allows you to view albums in a different chronological view.

Gift CD enables you to create a CD of your photos for family members, friends, or school projects. Simply insert a blank CD into the computer or external burner device, select the photos you wish to use (make sure they are in the picture tray) and click on the *Gift CD* button. After all the photos have been added and selected, give the CD a title, click the "Burn Disc" button to create the CD. With each gift CD, the Picasa software is transported with the pictures so that friends and family will experience easy viewing of your photos.

Editing Pictures with Picasa

Basic Tips

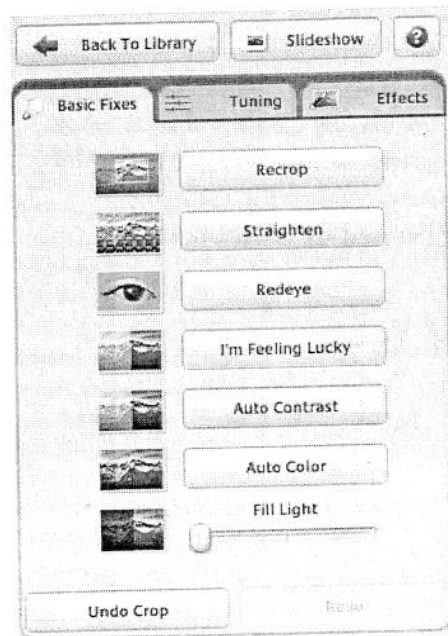
- ✱ Double-click on a picture thumbnail in the light-box to open the photo for editing.
- ✱ While in the "edit picture" screen, use the thumbnail arrows to navigate through the pictures in the album thumbnail filmstrip.
- ✱ Click the "Undo" button to reverse any edits made to the pictures.
- ✱ All edits made in Picasa are made to a copy of the picture, not the original image. The original image is always saved on your computer's hard drive.

Basic Fixes

Crop allows you to cut out parts of a picture you don't want to see. In this menu you can select a pre-determined crop size or a manual crop. After the crop has been made, it can be previewed before the final application.

Straighten

Use this feature to straighten a crooked picture. In the straighten view, use the slider at the bottom of the screen to adjust the image of the picture. Once this process is complete, click "apply".



Red Eye

Use this feature to remove red eye from any picture. First, click the “red eye” button. In the “red eye” view, click and drag the mouse around each eye separately to select it. Release the mouse to complete the selection and the picture will be displayed with the red eye removed. Click “apply” once you have finished.

I’m Feeling Lucky

This edit feature will change your picture’s color and contrast to produce what it thinks is the ideal image. You will see a change only if the picture color’s were not balanced to begin with.

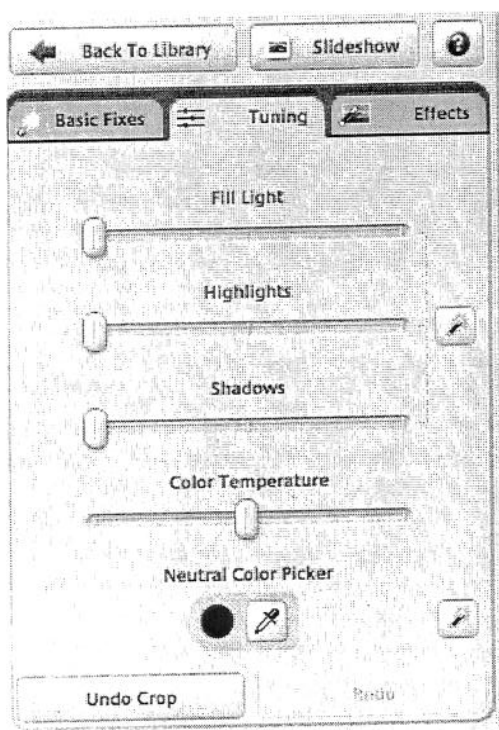
Auto Contrast

Clicking the “auto contrast” button will automatically adjust the contrast of your photo.

Fill Light

Use the fill light slider to add light to the foreground of a picture that has backgrounds that are too light.

Tuning Tab



Fill Light slider

Use the “fill light” slider to add light to the foregrounds of pictures.

Highlights slider

This slider allows you to add or reduce the bright spots of your pictures.

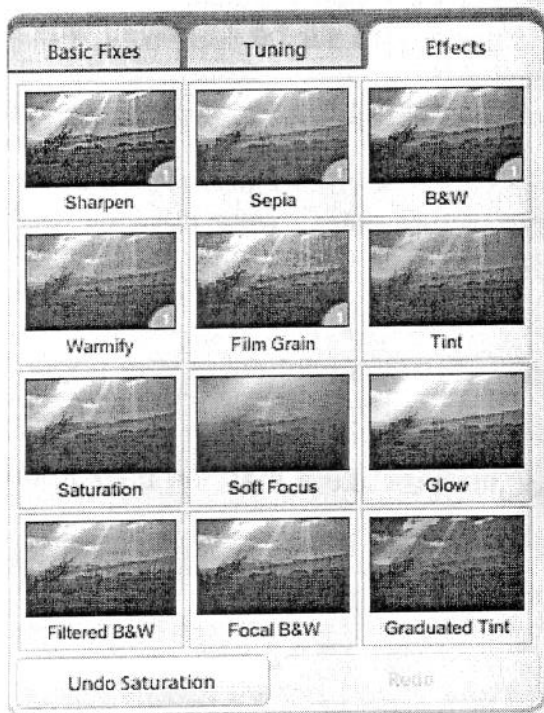
Shadows slider

Use the “shadows” slider to add more shadows to your photo.

Neutral Color Picker

Use the “pick color” dropper to tell Picasa which part of your picture it should consider as grey or white. Picasa will then color balance the part of the picture surrounding the selection.

Effects Tab



The Effects Tab has twelve editing features that can be used to edit your photos and can be applied to any digital image (not digital video). The effects can be applied in layers and removed with the "undo" tab.

Sharpen

The sharpen feature makes the edges and features of your photo sharper and more clear.

Sepia

The sepia feature gives pictures an old fashioned feel with a brownish ting.

B&W

The black and white feature turns any photo into black and white.

Warmify

This feature allows you to warm up a cool photo, most importantly warming up skin tones.

Film Grain

Give your photographs a grainy old-fashioned film look with this effect.

Tint

Use the dropper to pick a color and apply that duotone or tint to the entire picture.

Saturation

Increase color saturation in your pictures.

Soft Focus

Soften the focus around a central point that you select to create a soft tone in a picture.

Glow

Give pictures a gauzy glow.

Filtered B&W

Make a picture that looks like it was taken with black and white film and a color filter.

Focal B&W

Create specific points of color around a central point with black and white surrounding.

Graduated Tint

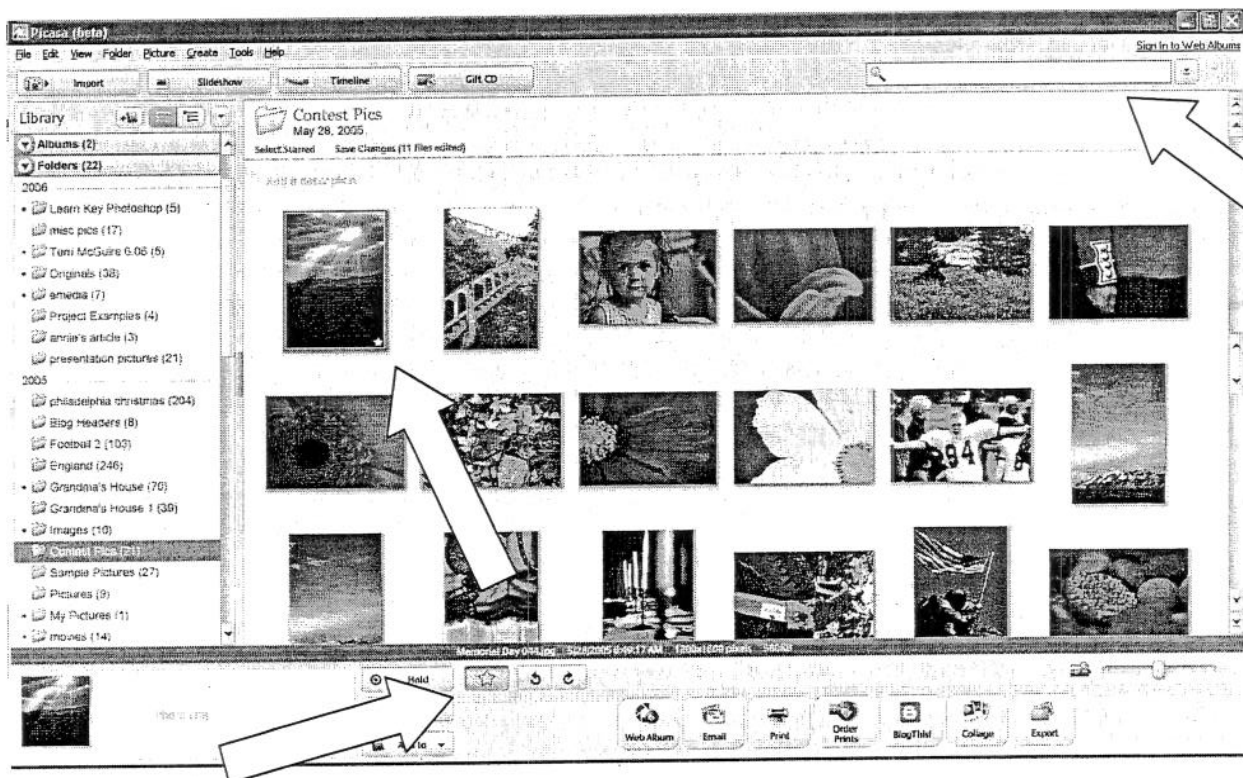
Add a graduated filter from a color you select. Useful for making gray skies blue.

Captions

In the edit mode, you can add a caption to any photo. Underneath the individual photo click on the text that says, "make a caption!" and type in your caption. You can hide or show the caption from the photo using the button on the left. You can delete the caption by clicking the trash can icon on the right.

Your captions will always stay with the picture so if sending photos to a friend, they will see the captions, too.

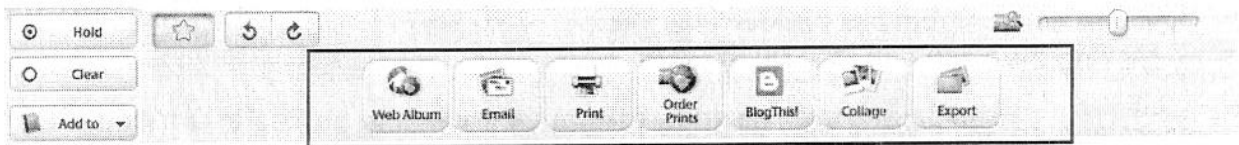
Star Feature



If you wish to mark pictures for easy finding later, use the star feature. Select the star button from the bottom tray and mark each picture you wish to find later. These pictures generally share a similar theme, etc. Once the pictures are marked, they can be found quickly and easily by using the search tool at the top right hand side of the page. By selecting the option to search for the starred photos, you will find all the photos that were marked.

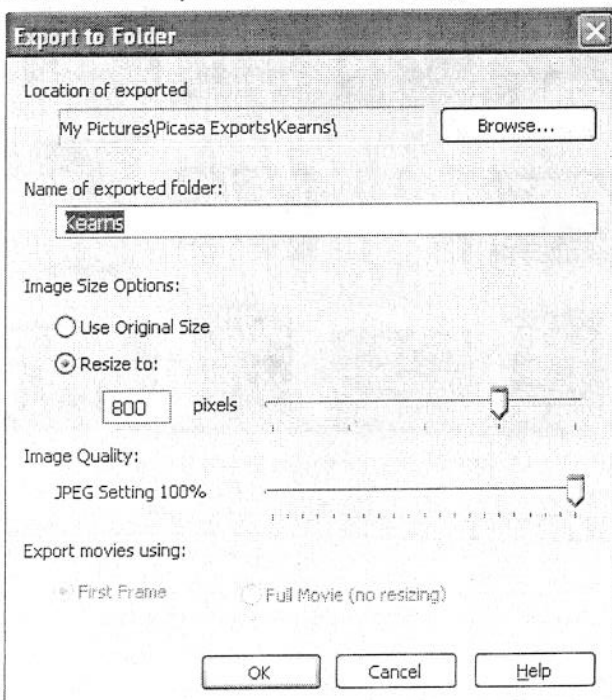
You can also search for pictures by caption, so if labeling your photos is what you would like to do for organizational purposes, finding them later might be much easier.

Exporting Photos



Picasa only edits copies of your photos, never touching the originals stored on your computer. This raises an interesting question for the Picasa user; How do I get my pictures out of Picasa? There are several methods to export pictures out of the software for use in other applications such as webpages, blogs, or for uploading to the internet.

In the Picasa picture tray, there are several options to help you use your pictures. You can print or e-mail directly from Picasa as well as upload a photo to a blog or a website. Additionally, direct from Picasa you can order prints online from one of multiple vendors such as Snapfish, Kodak Gallery, or Walgreens or WalMart.



Another option in this menu is the option to **Export** your photos. Exporting your photos allows you to do a couple of things.

First, it gives you the option of resizing your photos. This is important if you are planning on uploading to a webpage or sending a picture via e-mail. You want to make the file smaller so that it opens easier for the person receiving the message. Resizing to 800 pixels or smaller will make sending pictures over the internet easy and fast.

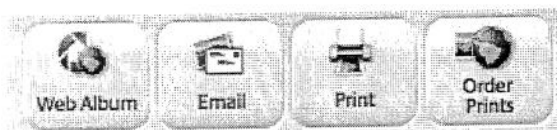
Second, it allows you to store your edited photos outside of Picasa. This means that Picasa will send the photos you select outside of Picasa into a specific folder called *Picasa Exports* inside your "My Pictures" file.

New Features in Picasa

Web Albums

In July of 2006, Picasa released a new Beta version of the software with a very special feature. Now, if you have a gmail e-mail account (an e-mail account through google), you have automatic access to free web space and one click upload to host your own website of pictures. Google gives you enough space to store 1000 photos on a website and approximately 250MB of free storage space.

To use Picasa Web Albums you must first select the pictures or file that you want to upload and make sure all images are in the picture tray. Next, click on the WebAlbum button at the bottom of the screen.



You will be required to log-in with your gmail username and password and once that is finished, Picasa will upload your pictures to the web. At that time, you have the choice to close the menu or to view your pictures online.





When you view your pictures online, you will notice a couple of things. The pictures are listed in an album format with the same title that the folder has on your computer, unless you choose to change the title before you upload. Your website address is a pretty long one, but you'll notice that it has your gmail moniker in it. You can also embed your photo album in your blog or your MySpace account.

